

Project Design Phase
Proposed Solution Template

Date	15 February 2025
Team ID	LTVIP2025TMID33633
Project Name	GrainPallete-A deep learning odyssey in rice type classification
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Manual rice grain classification is prone to human error and inefficiency.Traditional methods lack accuracy and scalability.
2.	Idea / Solution description	GrainPellette is a deep learning AI system that automatically classifies rice grains into various categories.
3.	Novelty / Uniqueness	The solution uses an advanced pre-trained CNN model with extra added layers and provides high accuracy than conventional machines.
4.	Social Impact / Customer Satisfaction	Enhances the income and efficiency of farmers,millers and exporters by ensuring quality and reducing losses due to miss classification. It improves trust in product quality.
5.	Business Model (Revenue Model)	Revenue can b generated through a subscription based Saas model for larger enterprises.
6.	Scalability of the Solution	This model is scalable across different types of grains and geographies with minimal retraining